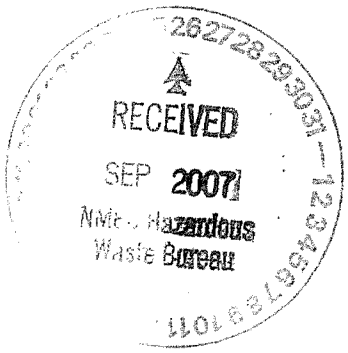
Los Alamos
NATIONAL LABORATORY
EST.1943



Environmental Programs
P.O. Box 1663, MS J591
Los Alamos, New Mexico 87545
(505) 606-2337/FAX (505) 665-1812

National Nuclear Security Administration
Los Alamos Site Office, MS A316
Environmental Restoration Program
Los Alamos, New Mexico 87544
(505) 667-4255/FAX (505) 667-5948

Date: September 26, 2007
Refer To: EP2007-0574

James P. Bearzi, Bureau Chief
Hazardous Waste Bureau
New Mexico Environment Department
2905 Rodeo Park Drive East, Building 1
Santa Fe, NM 87505-6303

Subject: Review of August 2007 Groundwater Data

Dear Mr. Bearzi:

The Los Alamos National Laboratory (LANL) Water Stewardship Project (LWSP) met on September 11, 2007, to review new groundwater data received in August 2007. At that time, several groundwater samples were identified with contaminant concentrations above the New Mexico or federal water quality standards. The LWSP deputy program director notified the Hazardous Waste Bureau by telephone on September 11, 2007, and followed up with an email on the same day. The instances of a contaminant above a standard for the first time were as follows.

Pajarito Canyon intermediate well 03-B-9 was sampled for the first time; the well is usually dry. All of the constituents have been detected previously in adjacent wells 03-B-10 and 03-B13, which are screened in the same hydrologic zone. The following constituents exceeded standards:

- Chloride was measured at 351 mg/L. The result was 1.4 times the New Mexico groundwater standard (applicable to domestic water supply) of 250 mg/L.

- Manganese was measured at 1450 µg/L. The result was 7.3 times the New Mexico groundwater standard (applicable to domestic water supply) of 200 µg/L.

- Dichloroethene[1,1-] was measured at 11.1 µg/L. The result was 2.2 times the New Mexico groundwater standard of 5 µg/L.

- Dioxane[1,4-] was measured at 450 µg/L. The result was 7.4 times the Consent Order 10^{-5} U.S. Environmental Protection Agency (EPA) tap water screening level of 61 µg/L.

- Trichloroethane[1,1,1-] was measured at 163 µg/L. The result was 2.7 times the New Mexico groundwater standard of 60 µg/L.

Sandia Canyon alluvial well SCA-4 was sampled for the first time. Turbidity was measured at 1000 nephelometric turbidity units during this sampling event, indicating that the high unfiltered metals values may be associated with suspended sediments in the groundwater sample. The following constituents exceeded standards:

- Arsenic was measured at 15 µg/L from an unfiltered sample. The result was 1.5 times the EPA maximum contaminant level of 10 µg/L.
- Lead was measured at 19.8 µg/L from an unfiltered sample. The result was 1.3 times the EPA drinking water action level of 15 µg/L.

This letter is our written submission that indicates in the accompanying report and tables the contaminants that meet the six screening criteria laid out in the Settlement Agreement and Stipulated Final Order signed by the New Mexico Environment Department, U.S. Department of Energy, and Los Alamos National Security, LLC, on June 14, 2007. To meet requirements in criteria 1, 3, and 4, the report calls out data that are the first exceedance of a standard, data that are the first exceedance of one-half a standard, and, generally, new detections of organic compounds.

If you have questions, please contact Ardyth Simmons at (505) 665-3935 (asimmons@lanl.gov) or Mat Johansen at (505) 665-5046 (mjohansen@doeal.gov).

Sincerely,

Susan G. Stiger, Associate Director
Environmental Programs
Los Alamos National Laboratory

Sincerely,

for David R. Gregory, Project Director
Environmental Operations
Los Alamos Site Office

SGS/DRG/TBA/DBR:sm

Enclosure: Report and accompanying tables: "Summary of New Los Alamos National Laboratory Groundwater Data Loaded in August 2007" (LA-UR-07-6341)

Cy: (w/enc.)
Laurie King, EPA Region 6, Dallas, TX
Tom Skibitski, NMED-OB, Santa Fe, NM
Steve Yanicak, NMED-OB, White Rock, NM
Bonita Eichorst, DOE-LASO, MS A316 (date-stamped copy emailed)
Susan G. Stiger, ADEP, MS J591
Carolyn Mangeng, ADEP, MS J591
Ardyth Simmons, EP-LWSP, MS M992
Armand Groffman, EP-LWSP, MS M992
David Rogers, EP-LWSP, MS M992
Paul Huber, EP-LWSP, MS M992
Tina Behr-Andres, EP-LWSP, MS M992
Alison M. Dorries, EP-ERSS, MS M992
Peggy Reneau, EP-ERSS, MS M992
Mei Ding, EES-6, MS J514
Public Reading Room, MS M992
EP-LWSP File, MS M992
RPF, MS M707
IRM-RMMSO, MS A150